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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,997

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Kazuhiko Honda

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1770

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EXAMINER

ZHU, WEIPING

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

12/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,997	Applicant(s) HONDA ET AL.	
	Examiner WEIPING ZHU	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/5/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 1-3 are currently under examination, wherein the claims 1-3 have been amended in applicant's amendment filed on August 24, 2009. The non-elected claims 4 and 5 have been cancelled in the same amendment. Applicant's affirmation of the election without traverse of Invention I, Claims 1-3 in the reply filed on August 24, 2009 is acknowledged. The amendments to the instant specification to correct editorial errors have been entered.

Status of Previous Rejections

2. The previous rejections of claims 1-3 under 35 U.S.C. 103(a) as stated in the Office action dated April 20, 2009 are maintained as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP ('412 A) in view of Nitto et al. (US 4,437,905) as stated in the Office action dated April 20, 2009.

With respect to the amended features in the instant claim 1, JP ('412 A) discloses controlling in the atmosphere in the reducing zone the log (PH₂O/PH₂) of the water partial pressure and hydrogen partial pressure to log (PH₂O/PH₂) ≤ -0.8 (paragraphs

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[0022]-[0023], machine translation), which overlaps the claimed range of $(\text{PH}_2\text{O}/\text{PH}_2) \leq 0.5$. A prima facie case of obviousness exists. See MPEP 2144.05 I. JP ('412 A) further discloses the process is carried out in a continuous system hot-dipping line comprising an oxidizing zone and a reducing zone (paragraphs [0021]-[0027]). The reducing zone of the continuous system hot-dipping line as disclosed by JP ('412 A) obviously reads on the claimed apparatus limitation of an all radiant tube type annealing furnace without an oxidizing zone in the instant claim 1. JP ('412 A) further discloses oxidizing the steel sheet surface in an oxidizing zone prior to an annealing step in a reducing zone is necessary to control the formation of silicon oxide on the surface (paragraphs [0020] and [0021]). It is noted that the instant claim 1 does not exclude the oxidizing step before the annealing step. Actually, as indicated in the instant specification (lines 24-31, page 7), an oxide film is produced at the surface of the steel sheet before the annealing. Therefore, the process of JP ('412 A) in view of Nitto et al. ('905) renders the claimed process obvious to one of ordinary skill in the art as discussed above and in the section II of the Office action dated April 20, 2009.

With respect to the amended features in the instant claims 2 and 3, they do not change the scopes of the claims. The reasons for the rejections of claims 2 and 3 as stated in the section II of the Office action dated April 20, 2009 are further applied properly.

Response to Arguments

4. The applicant's arguments filed on August 24, 2009 have been fully considered but they are not persuasive.

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The applicant argues that JP ('412 A) in view of Nitto et al. ('905) does not disclose the amended features in the instant claim 1; both references use facilities equipped with both an oxidizing zone and a reducing zone; therefore the process of JP ('412 A) in view of Nitto et al. ('905) is different from the instantly claimed process. In response, see the reason for the rejection of the amended features in the instant claim 1 in the section above.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

WZ

9/7/2009